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63. Note from Dr. Engelmann.—Your July BULLETIN is just received. Did I write so indistinctly that you could have made out the *glutinous* pollen *gelatinous*? Who ever has seen gelatinous pollen?

Of minor importance, is that you made me refer the moth in question to the *Genus Tortrix*. I undoubtedly said "*allied to Tortrix*." Our State Entomologist, Prof. Riley, has examined the moth, and found it to belong to Tineidæ, and to constitute a new and distinct genus. The same is found wherever capsule-bearing Yuccas grow. The larva lives on the growing seeds, fertilized by the exertions of its mother, bores through the yet green rind of the full grown fruit, and enters the ground. I have received it now from South Carolina, whence Dr. John K. Mellichamp, the discoverer of Pinus Elliotti, sends it; and from Texas, where Mr. Elihu Hall has found it. Dr. Mellichamp has won laurels in the zealous investigation of the flora of his region, and has furnished me, in the most amiable manner, valuable material and notes for my botanical studies, especially as far as regards Coniferæ and Yuccas.

Scarcely any Yucca capsule is seen without one or more holes in it made by the escaping larvæ, and part and sometimes all of the seeds are sacrificed to obtain the fertilization of the ovules.

Your notice of the Agave has made me think of your letter. I had mislaid and forgotten it. I should like to obtain, if yet time, a bunch of flowers, fresh, sent by mail in a box.

You will observe a fact, interesting in many points, in the flowers and fertilization of Agave. When the flowers open and the anthers shed their pollen, the style is yet quite short, often hidden within the flowers, and the stigma closed. Only the following day, after the anthers are effete, or have even fallen off, the style lengthens and usually attains the height of the filaments, when the three lobes of the stigma expand, ready to receive the pollen of the younger flowers opening now above them. Agave is, therefore, proterandrous; descriptions mentioning the length of the style must be cautiously considered; and figures which represent style and stamen equally developed are necessarily erroneous.

I wish I could obtain a bunch of flowers, and regret much, not having written at once. Capsules and seeds will also be acceptable.

ST. LOUIS, July 29th, 1872.

[When we received Dr. E.'s letter it was too late for the Agave. We publish his request in hopes that some one else may be able to respond.—EDS.]

64. Yucca.—In Dr. George Engelmann's notes on the fertilization of the Yuccas, in July BULLETIN, he says: "The fruit and seed are *rare*; indeed, almost unknown in cultivation in Northern gardens;" and also, "Without artificial aid, the pollen never reaches the inner or stigmatic surface of the tube, &c."

In my own garden, the *Y. filamentosa*, Gray, blooms and matures its seed annually. I have never been able to discover the intervention of any insect to assist fertilization, nor have I ever failed to secure the prompt germination of seed taken from any well-matured capsule.

J. W. B.

FLUSHING, L. I.